CLAIMS

5   1. Network traffic control unit, comprising
- a filter unit (51) for intercepting messages
  - relating to peer-to-peer application,
  - from a network line (3),
  - irrespective of destination,
10 • a control logic (52) that is configured for managing a request represented by an intercepted message subject to its content and subject to peering specific knowledge the network traffic control unit (5) provides.

2. Network traffic control unit according to claim 1,
15   wherein the network traffic control unit (5) is prepared to communicate according to a peer-to-peer application protocol.

3. Network traffic control unit according to claim 2,
wherein the network traffic control unit (5) is prepared to apply the peer-to-peer application
20   protocol for managing connect requests.

4. Network traffic control unit according to any one of the claims 1 to 3,
wherein the network traffic control unit (5) is prepared to communicate according to a
protocol different to the peer-to-peer application protocol.
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5. Network traffic control unit according to claim 4,
wherein the network traffic control unit (5) is prepared to apply the protocol different to the
peer-to-peer application protocol for managing query requests.

30   6. Network traffic control unit according to any one of the preceding claims,
wherein the peering specific knowledge comprises information on peer-to-peer connections
the network traffic control unit (5) is currently aware of.

7. Network traffic control unit according to any one of the preceding claims,

wherein the peering specific knowledge comprises information on peer nodes associated to the network traffic control unit (5).

8. Network traffic control unit according to any one of the preceding claims,

wherein the peering specific knowledge comprises an index that allocates keys representing data files for download to network traffic control units.

9. Network traffic control unit according to any one of the preceding claims,

wherein the peering specific knowledge comprises an index that allocates peer nodes to keys representing data files for download.

10. Network traffic control unit according to any one of the preceding claims,

wherein the control logic (53) is configured for implementing a set of rules for deriving keys from intercepted query requests.

11. Method for controlling traffic on a network, comprising:

•   receiving messages related to peer-to-peer application, intercepted by a filter unit from a
    network line (3), irrespective of the messages' destination,
•   managing a request represented by an intercepted message subject to its content and
    subject to peering specific information.

12. Method according to claim 11, comprising

dropping the intercepted message.

13. Method according to claim 11 or claim 12,

wherein a request to be managed is a connect request issued from a peer node and directed to another peer node.

14. Method according to claim 13,

wherein managing the connect request is subject to existing connections the network traffic control unit is aware of.

15. Method according to claim 14,

5 wherein no message is sent to the addressee of the intercepted connect request when a connection is already established that can serve or be extended to serve the requesting peer node.

16. Method according to any one of the claims 13 to 15, comprising

10 sending a connect request to the originator of the intercepted connect request in response to the intercepted connect request.

17. Method according to one of the claims 13, 14 or 16, comprising
sending a connect request to the addressee of the intercepted connect request.

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18. Method according to one of the claims 13, 14 or 16, comprising
sending a connect request to the addressee of the intercepted connect request pretending the originator of the intercepted connect request is sending the connect request.

20 19. Method according to one of the claims 13 to 16, comprising
sending a connect request to a peer node other than the addressee of the intercepted connect request.

20. Method according to one of the claims 13 to 16, comprising

25 sending a connect request to another network traffic control unit (5).

21. Method according to claim 16 in combination with any one of the claims 17 to 20,
sending the connect request to another party than the originator of the intercepted connect request once the originator has accepted the connect request from the network traffic control

30 unit directed to the originator.

22. Method according to any one of the preceding claims 11 to 21,

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wherein a request to be managed is a data file query issued by a peer node.

23. Method according to claim 22,

wherein managing the query request is subject to an index that allocates keys representing data

5   files for download to network traffic control units.

24. Method according to claim 22 or claim 23,

wherein managing the query request is subject to an index that allocates peer nodes to keys.

10 25. Method according to any one of the claims 22 to 24, comprising

deriving one or more keys from the content of the query request.

26. Method according to claim 25, comprising

directing a request to one or more remote network traffic control units that are allocated to the

15 derived keys according to the key - network traffic control unit index.

27. Method according to claim 26, comprising

receiving a list of peer nodes that are allocated to the keys, from the remote network traffic

control unit.

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28. Method according to claim 27, comprising

sending a hit message to the querying peer node.

29. Method according to any one of the preceding claims 11 to 28, comprising

25 •   administering a key - peer node index for some keys, and

  •   providing other network traffic control units on request with the knowledge which peer

     nodes are allocated to a requested key according to the key - peer node index.

30. Method according to claim 29,

30 wherein administering the key - peer node index comprises removals of entries.

31. Method according to any one of the preceding claims 11 to 30, comprising

- monitoring hit messages sent from an associated peer node,

- deriving one or more keys from the content of a hit message,

- allocating the sending peer node to the derived keys, and

- storing the key - peer node relation in a key - peer node index.

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32. A network comprising

- at least one group (1, 2, 4) of peer nodes,

- a network line (3) serving as ingress/egress line for this peer group (1, 2, 4), and

- a network traffic control unit (5) according to any one of the preceding claims 1 to 10,

10 intercepting messages from the network line.

33. A computer program element comprising computer program code which, when loaded in a processor unit of a network traffic control unit, configures the processor unit for performing a method as claimed in any one of claims 11 to 31.

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